

Description of Recommended Projects for FY 2000

October 15, 1999

Twenty projects were recommended for funding by the Interim Science Panel totaling over 14.9 million dollars. The projects are described below and executive summaries for each of the projects are attached. The Technical Review Panel comments refer to the original technical review panels that scored each of the proposals earlier this year. The Interim Science Panel refers to the group of scientists that put together this recommendation on September 27 and September 28, 1999. Specific comments expressed at the October 13, 1999 Ecosystem Roundtable meeting are also included. Where there are no Ecosystem Roundtable comments, there was no discussion of the project during the meeting.

99-B116 Canal Ranch Habitat Restoration Phase II

Applicant:	Department of Fish and Game
Requested amount:	\$131,980
Recommended amount:	\$131,980

The Canal Ranch Habitat Management Plan includes restoration of seasonal wetlands, riparian and shaded riverine aquatic habitats and enhancement of agricultural management for fish and wildlife on 3,070 acres located in the northeastern Delta, San Joaquin County. Phase II involves ground truthing the Plan with the results of Phase I. The Interim Science Panel concluded this was continuation of important work in a high priority area and had strong links to important agricultural issues. This effort would validate and demonstrate the concept of wildlife-friendly agricultural practices, providing benefits to agriculture and wildlife.

Ecosystem Roundtable Comments: Concern was expressed by the Delta Protection Commission that they were unaware of the project and had not been notified by the applicant. They were concerned that the local landowners may not be fully aware of the project. It was explained that administrative issues like failure to provide notification and permission for access would be treated in a manner consistent with the 1999 proposals. Applicants would be given a finite amount of time to provide the necessary notification or their project would not be funded.

99-B153 Merced River Corridor Restoration Project Phase III

Applicant:	Stillwater Sciences
Requested amount:	\$229,000
Recommended amount:	\$229,000

CALFED previously funded Phase II of this project to conduct baseline analysis and identify

important issues and concerns. Phase III will complete field and monitoring efforts, develop an overall Merced River Corridor Restoration Plan, and develop conceptual design for five priority projects from the Plan. The Technical Review Panel supported continued funding for the consensus building approach. The Interim Science Panel concluded the timing of the effort was ripe and could benefit from the ongoing "white paper" effort which is studying stream channel dynamics.

99-B192 McCormack-Williamson Tract Phase II Restoration Planning

Applicant:	Department of Water Resources
Requested amount:	\$355,000
Recommended amount:	\$355,000

CALFED recently funded the acquisition McCormack-Williamson Tract, a 1600 acre Delta island located in southwestern Sacramento County. This proposal will support the design and environmental documentation for restoration of the Tract. With purchase of the Tract final, the Interim Science Panel saw this as an integral part to restoration of this important area.

Ecosystem Roundtable Comments: The question was raised about the relationship of the two McCormack-Williamson Tract proposals. It was explained that the two proposals were linked. The restoration planning is Task 5 of the project. The monitoring program includes Tasks 1-4 and Task 6 project management. It was pointed out that the Integration Panel, in their previous consideration of these proposals in June of this year, did not recommend funding the terrestrial monitoring activities.

99-B193 McCormack-Williamson Tract Phase II Monitoring Program

Applicant:	UC Davis
Requested amount:	\$556,200
Recommended amount:	\$556,200

This project complements the above proposal by conducting the historic research and baseline studies necessary for restoration planning and development of a monitoring program for the McCormack-Williamson Tract. The Interim Science Panel concluded that it was critical to develop a good restoration and monitoring plan for this area.

Ecosystem Roundtable Comments: The question was raised about the relationship of the two McCormack-Williamson Tract proposals. It was explained that the two proposals were linked. The restoration planning is Task 5 of the project. The monitoring program includes Tasks 1-4 and Task 6 project management. It was pointed out that the Integration Panel, in their previous consideration of these proposals in June of this year, did not recommend funding the terrestrial monitoring activities.

99-B126 Subreach/Site-Specific Management Planning on the Sacramento River

Applicant: The Nature Conservancy
Requested amount: \$13,964,900
Recommended amount: \$519,000

The Nature Conservancy and others have been previously funded by CALFED to purchase land along the mainstem of the Sacramento River within the SB 1086 Sacramento River Conservation Area. This proposal was for additional acquisitions, baseline stewardship, and site-specific management planning. The Interim Science Panel recommended funding only the site-specific management planning part of this proposal. That management plan will address potential changes in hydrology and geomorphology, local economic impacts, and other issues associated with ongoing riparian protection and restoration work. This plan could result in important information for CALFED to better understand the complete suite of issues associated with riparian preservation and restoration. The Interim Science Panel felt it was important to begin the necessary site-specific planning efforts including local economic impacts including better understanding of potential 3rd party impacts associated with changes in land use.

Ecosystem Roundtable Comments: Concern was expressed about this project's ability to address agricultural concerns. It was explained that the planning effort specifically identified investigation of potential agricultural and third party impacts.

99-D100 Real Time Water Quality Management - San Joaquin River

Applicant: Grassland Water District
Requested amount: \$652,330
Recommended amount: \$652,330

The Grassland Basin contains the largest contiguous wetland in the State of California. This project proposes monitoring, modeling and adaptive management of field operations, in cooperation with the currently funded CALFED San Joaquin River Real-Time Water Quality Management Project to coordinate seasonal wetland drainage with assimilative capacity. This project was scored highly by the Technical Review Panel and the Interim Science Panel considered the project an important environmental water quality action for this area.

99-D124 Dissolved Organic Carbon Release - Delta Wetlands Part 2

Applicant: US Geological Survey
Requested amount: \$2,740,040
Recommended amount: \$2,740,040

Part one of this project was funded earlier this year by CALFED which focuses on the quality of

organic carbon released by wetlands and agricultural operations. This proposal focuses on the amounts of organic carbon released by wetlands and agricultural operations and what management strategies may be used to limit the introduction of organic carbon into Delta waters. The Interim Science Panel concluded that it was important to study both the quality and amount of organic carbon to gain comprehensive insight into the issue. This is a high priority question to be answered for the Ecosystem Restoration Program.

Ecosystem Roundtable Comments: Concern was expressed that since Part I of this project had just been funded in 1999, perhaps it would be appropriate to wait for the results before initiating Part II. It was explained that sequencing these two projects is not appropriate, and that they needed to go forward together. Failure to complete both halves of the study concurrently would result in the need to redo the first part at the time the second was initiated. It was recognized that these two proposals should probably not been separated, but submitted as a single proposal.

99-E109 Treating Ballast Water Discharges at Existing Municipal Wastewater Treatment Plants

Applicant:	San Francisco Estuary Institute
Requested amount:	\$118,460
Recommended amount:	\$118,460

This project investigates the possibility of treating ballast water in municipal wastewater treatment plants, the cost of such activities, and the effectiveness of standard municipal wastewater treatment to remove or kill ballast water organisms using benchtop wastewater treatment models. The Interim Science Panel supported additional projects focusing on non-native invasive species, and the impacts and control of non-native invasive species in ballast water has not been previously been funded by CALFED.

Ecosystem Roundtable Comments: It was pointed out that recent legislation on ballast water would likely address these research needs. The ISP wanted to ensure that attention was paid to ballast water issues because of its importance in the Strategic Plan.

99-E110 Determining the Biological, Physical and Chemical Characteristics of Ballast Water Arriving in SF Bay

Applicant:	San Francisco Estuary Institute
Requested amount:	\$375,750
Recommended amount:	\$375,750

The discharge of ships' ballast water is probably the greatest single source of new introductions into aquatic habitats, and ballast water arriving in the Bay and Delta has never been sampled. This project will compile and analyze shipping data and sample ballast water to develop data on

the types, sizes, and concentrations of organisms arriving in the Bay/Delta ports. The Interim Science Panel supported this project which could provide valuable information on this area of critical uncertainty.

Ecosystem Roundtable Comments: It was pointed out that recent legislation on ballast water would likely address these research needs. The ISP wanted to ensure that attention was paid to ballast water issues because of its importance in the Strategic Plan.

99-E118 *Arundo Donax* Eradication and Coordination

Applicant:	Sonoma Ecology Center
Requested amount:	\$818,045
Recommended amount:	\$818,045

This project directs funds to partners in six watersheds to carry out eradication of *Arundo donax*, the state's most invasive riparian weed. This proposal was scored highly by the Technical Review Panel and was the most comprehensive proposal on *Arundo*. The Interim Science Panel supported the region-wide coordination proposed and noted that numerous volunteer resources would be leveraged to address this non-native invasive species issue.

99-B102 Tuolumne River Bobcat Flat Floodplain Acquisition

Applicant:	Friends of the Tuolumne, Inc.
Requested amount:	\$1,984,320
Recommended amount:	\$1,984,320

This project will preserve and restore approximately 280 acres of riparian floodplain on the Chinook salmon spawning reach of the Tuolumne River 12 miles east of Waterford. This project was scored highly by the Technical Review Panel and considered a great opportunity to protect habitat and provide flood control benefits along the Tuolumne. The Technical Review Panel noted that the ultimate land management agency still needs to be clarified. The Interim Science Panel observed that acquisition of this parcel was time-sensitive, the property was at risk to be sold for commercial gravel extraction, could provide a gravel source for other restoration projects, and could be important for riparian/geofluvial processes.

Ecosystem Roundtable Comments: The original cost of the project was reported incorrectly by the applicant on their proposal cover sheet. The actual cost is reflected here, and is approximately \$300,000 more than originally reported. There was discussion about both of the proposed land acquisition projects relative to the House Energy and Water Subcommittee budget language which "directs that Bay-Delta funds shall not be used for land and water right acquisitions without proper consideration to, and mitigation of, the economic impacts associated with such acquisitions." It was explained that the acquisition of the properties will not result in a

land use change, and that subsequent restoration activities would have to undergo subsequent environmental documentation which would address this specific issue. Additional concerns were expressed about completion of environmental documentation prior to acquiring property. It was explained that the U.S. Fish and Wildlife Service has been administering land acquisitions for CALFED and has requirements to complete appropriate environmental compliance prior to acquiring any lands.

99-B165 Liberty Island Acquisition and Restoration Phase II

Applicant:	US Fish and Wildlife Service
Requested amount:	\$13,495,605
Recommended amount:	\$2,623,043

In 1997, CALFED provided funding to acquire the majority of Liberty Island. This proposal is to purchase two inholdings, to develop a restoration and monitoring plan for Liberty Island, and to purchase two additional properties. Restoration of this 5,209 acre parcel will provide tidal shallow-water, tidal emergent wetlands, seasonal wetlands, delta sloughs, and riparian habitat to benefit Delta smelt, winter-run Chinook salmon and other priority species. The Technical Review Panel and Interim Science Panel recommend funding the two inholding acquisitions and development of the restoration and monitoring plan. The Interim Science Panel observed that acquisition of the inholdings would provide greater flexibility in restoration planning and reduce future liability. The Technical Review Panel and Interim Science Panel did not recommend acquiring the other identified north delta parcels detached from Liberty Island at this time.

Ecosystem Roundtable Comments: There was discussion about both of the proposed land acquisition projects relative to the House Energy and Water Subcommittee budget language which "directs that Bay-Delta funds shall not be used for land and water right acquisitions without proper consideration to, and mitigation of, the economic impacts associated with such acquisitions." It was explained that the acquisition of the properties will not result in a land use change, and that subsequent restoration activities would have to undergo subsequent environmental documentation which would address this specific issue. Additional concerns were expressed about completion of environmental documentation prior to acquiring property. It was explained that the U.S. Fish and Wildlife Service has been administering land acquisitions for CALFED and has requirements to complete appropriate environmental compliance prior to acquiring any lands. The Delta Protection Commission expressed concern that Liberty Island is contained in the North Delta National Wildlife Refuge and that those environmental documents are not complete.

99-C100 Last Chance Creek Watershed Restoration Project - Ferris Meadowview Reach

Applicant:	Feather River Coordinated Resources Management
Requested amount:	\$980,000
Recommended amount:	\$980,000

The Last Chance Creek Watershed is a 90,000 acre forest and meadow ecosystem in the headwater of the East Branch, North Fork Feather River. It contains the longest contiguous meadow complex (37 miles) in the Sierra Nevada drainage area of the Sacramento River. The project will restore 9.1 miles of channel and 4,330 acres of meadow by returning streamflow to abandoned remnant or reconstructed channels and rehabilitation of 1 mile of county road through relocation and/or surfacing. The Technical Review Panel scored this project highly and the Interim Science Panel concluded that this project could provide important information on the effects of meadow restoration in the upper watershed. One of the ecological uncertainties the Interim Science Panel would like to see resolved is the linkage between upper watersheds and CALFED's objectives for the Bay-Delta system.

99-C105 Panoche/Silver Creek Watershed Management and Action Plan

Applicant:	Westside Resource Conservation District
Requested amount:	\$848,000
Recommended amount:	\$848,000

Through a Coordinated Resources Management Plan, best management practices outlined in the Panoche Silver Creek Watershed Assessment will be evaluated for the management of erosion and reduction of the sediment and contaminant load delivered from the upper watershed during high flow events. The results of these and other studies will be compiled into a watershed "Action Plan" to plan and implement future watershed management actions. This project has both ecosystem restoration and water quality benefits. The Technical Review Panel scored this project highly and the Interim Science Panel noted that this project had the potential to help answer important ecological question relative to selenium in the watershed and its relationship to the Bay-Delta system.

99-C108 Cottonwood Creek Watershed Monitoring and Assessment

Applicant:	Cottonwood Creek Watershed Group
Requested amount:	\$935,000
Recommended amount:	\$350,000

CALFED previously funded the development of the Cottonwood Creek Watershed Group, a landowner group which works with the local agencies and other stakeholders. This project will support the development of a watershed assessment to guide future activities within Cottonwood Creek. Because this is an important tributary, the Interim Science Panel recommended funding a year of continued work in this watershed.

99-C140 Sonoma Creek Watershed Conservancy

Applicant:	Southern Sonoma Resource Conservation District
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Requested amount: \$702,633
Recommended amount: \$489,923

The Sonoma Creek Watershed Conservancy has a proven track record of successful watershed planning and implementation work, including work previously funded by CALFED. This project will implement riparian and aquatic habitat restoration activities and continue watershed stewardship and education programs in the Sonoma Creek watershed. The Interim Science Panel recommended funding one year of continued activities.

99-B145 Culture of Delta Smelt: Phase II

Applicant: UC Davis
Requested amount: \$431,606
Recommended amount: \$431,606

This project is developing a functional culture system for the threatened delta smelt. CALFED funded the first year of this project which ended in June of 1999. This project was scored highly by the Technical Review Panel. The Interim Science Panel also supported this funding for continued work on a high priority at risk species. Some of the values the Interim Science Panel identified included culture of larval and adult fish for toxicological studies and experimental fish for fish treadmill/screening studies.

Ecosystem Roundtable Comments: Some concern was expressed regarding the success of the project to date. It was clarified that the project had been quite successful and that IEP had been providing intermediary funding until funding to complete the project had been secured.

99-F105 Biological Assessment of Green Sturgeon Phase II

Applicant: UC Davis
Requested amount: \$205,013
Recommended amount: \$205,013

This project continues work focusing on the biological characteristics and key areas of scientific uncertainty of the Green Sturgeon and its habitats. The Technical Review Panel scored this project highly and the Interim Science Panel supported continued funding to gain additional information on this high priority species.

99-B152 A Mechanistic Approach to Riparian Restoration -San Joaquin Basin

Applicant: Stillwater Sciences
Requested amount: \$233,666
Recommended amount: \$233,666

This project will identify the physical and biological mechanisms affecting establishment of riparian vegetation in order to identify the most cost-effective strategies and sites for riparian protection and restoration. The Technical Review Panel commented that this could be a useful tool. The Interim Science Panel agreed this was an important effort for the San Joaquin Basin as the riparian resource and associated habitat values constitute the major focus for restoration effort in the near term.

99-B166 Focused Action to Develop Ecologically-based Hydrologic Models and Water Management Strategies in the San Joaquin Basin

Applicant:	Natural Heritage Institute
Requested amount:	\$295,925
Recommended amount:	\$295,925

This project will develop state-of-the-art scientific approaches for developing water management operations compatible with both environmental and other water supply objectives. Methods for identifying the flow regimes necessary to achieve ecological restoration objective without undesirable water supply impacts on water users will be demonstrated. The Interim Science Panel noted that this project would address several critical uncertainties related to natural flow regimes and issues associated with channel dynamics and sedimentation.

Ecosystem Roundtable Comments: There was discussion of this proposal as compared to 99-B160, Developing and Integrated Model for River Restoration and Water Acquisition in the Central Valley. It was explained that both projects had merit, and would have complementing characteristics. Since the proposals had been submitted by two different applicants it would be difficult to condition funding on a requirement that the projects be integrated.

Other Ecosystem Roundtable Project Recommendations

Dan Keppen Ecosystem Roundtable Alternate recommended consideration of two fish screen projects for funding:

- 99-A115 Butte Creek/Sanborn Slough Bifurcation Project \$960,000
- 99-A116 Pleasant Grove-Verona Mutual Water Co. Fish Screen \$331,000

Members of the public expressed support and provided information about the following projects:

- 99-C128 Upper Butte Creek Road Management and Improvement \$209,476
- 99-C129 Development of a Watershed Strategy for Little Chico Creek \$293,473
- 99-C130 Big Chico Creek & Little Chico Creek Watershed Support \$267,326
- 99-A108 Lower Mokelumne River Restoration Program Phase II \$11,916,000
- 99-B135 Lower Clear Creek Floodway Restoration Proposal \$4,901,553
- 99-B139 Protection and Enhancement of Delta In-Channel Islands Phase II \$3,138,670

Environmental Water Acquisitions

The Interim Science Panel endorsed the Strategic Plan's recommendation that in cases where there may be less than adequate scientific rationale for major actions (e.g. construction projects with irreversible effects), funds may best be invested in fungible assets such as land or water. These purchases are unquestionably of considerable value, and may in the future be sold or exchanged for items which turn out to be of greater value to the ecosystem as our knowledge of the ecosystem improves. Thus, the Panel recommends funding the Environmental Water Account with those funds not needed for the highest ranked projects. The Panel did not have the time or resources to be able to specify a specific amount, but reasoned that four to seven million would be appropriate.

Ecosystem Roundtable Comments: There was substantial discussion between Ecosystem Roundtable members regarding the appropriate level of funding for this item. There was broad support for dedicating funds and moving forward with the development of the framework for long-term environmental water acquisitions. Ecosystem Roundtable members recommended reviewing previous documents prepared on this topic and coordinating with CVPIA. There was a range of views on supplementing the existing \$9 million in the ecosystem restoration environmental water account with additional funds from FY 2000. Some felt it was important to continually build the funds available for long-term water acquisitions because of the importance of this activity and its high cost, while others felt that until the framework for acquisition was established it was unlikely that the money would be used and therefore it was not critical to increase the amount in the account this year.

Ecosystem Science and Monitoring Program

There is increasing recognition that an immediate and significant effort is needed to ensure that key upcoming decisions can be advised as fully as possible by science-based decision support. The Interim Science Panel supported the strengthening of the Ecosystem Science and Monitoring Program.

Ecosystem Roundtable Comments: The Ecosystem Roundtable generally supported the concept of funding science and monitoring for the Ecosystem Restoration Program, but were concerned about the high cost of these activities. Materials provided included a description of activities, budget and a narrative explanation. Members were unclear about how the funds would be used, and if the proposed level of funding would be necessary. Clarification was provided that the activities proposed in the science and monitoring program include those which will be implemented by CMARP.